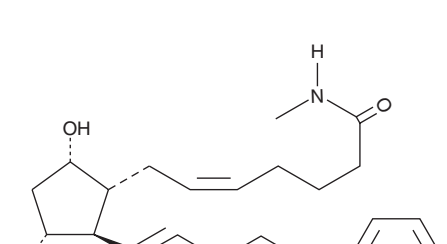
PRODUCT INFORMATION

17-phenyl trinor Prostaglandin $F_{2\alpha}$ methyl amide

Item No. 10010351

CAS Registry No.: 155206-01-2
Formal Name: (5Z)-7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-phenyl-1-penten-1-yl] cyclopentyl]-N-methyl-5-heptenamide
Synonyms: Bimatoprost methyl amide, Methylamido Dihydro Noralfaprostal, 17-phenyl trinor $PGF_{2\alpha}$ methyl amide
MF: $C_{24}H_{35}NO_4$
FW: 401.5
Purity: ≥98%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥1 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

17-phenyl trinor Prostaglandin $F_{2\alpha}$ methyl amide (17-phenyl trinor $PGF_{2\alpha}$ methyl amide) is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO, acetonitrile, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of 17-phenyl trinor $PGF_{2\alpha}$ methyl amide in acetonitrile is approximately 3 mg/ml and approximately 25 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of 17-phenyl trinor $PGF_{2\alpha}$ methyl amide is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 17-phenyl trinor $PGF_{2\alpha}$ methyl amide in PBS, pH 7.2, is approximately 300 µg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

17-phenyl trinor $PGF_{2\alpha}$ is a metabolically stable analog of $PGF_{2\alpha}$ and is a potent agonist for the FP receptor, binding with a relative potency of 756% compared to that of $PGF_{2\alpha}$.[1] The ethyl amide of 17-phenyl trinor $PGF_{2\alpha}$ bimatoprost has been approved for use as an ocular hypotensive drug.[2] 17-phenyl trinor $PGF_{2\alpha}$ methyl amide is an analog of bimatoprost. Its biological and toxicological properties have not been evaluated.

References

1. Balapure, A.K., Rexroad, C.E., Jr., Kawada, K., *et al*. Structural requirements for prostaglandin analog interaction with the ovine corpus luteum prostaglandin $F_{2\alpha}$ receptor. *Biochem. Pharmacol.* **38**, 2375-2381 (1989).
2. Woodward, D.F., Krauss, A.H.-P., Chen, J., *et al*. The pharmacology of Bimatoprost (Lumigan™). *Surv. Ophthalmol.* **45**, S337-S345 (2001).

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